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Committee on the Peaceful Uses of Outer Space

Information furnished in conformity with the Convention on Registration of Objects Launched into Outer Space

Letter dated 19 January 2014 from the Legal Services Department of the European Space Agency to the Secretary-General

In conformity with the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex), the rights and obligations of which the European Space Agency has declared its acceptance of, the Agency has the honour to transmit information on its three Swarm satellites and its Gaia spacecraft (see annex).

The three Swarm satellites are expected to reach their final orbit in April 2014. The orbital parameters provided are those of the expected final orbits and therefore do not correspond to the actual positions of the three satellites during the transit phase. The Agency will confirm the final orbits upon arrival of the satellites and the start of their scientific mission.

[*Signed*]
Pierre **Reynaud**
Head, International Law and European Union Legal Services Division, Legal Services Department

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Annex

Registration data on space objects launched by the European Space Agency*

Swarm-B

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator:	2013-067A
Name of space object:	Swarm-B
State of registry:	European Space Agency (ESA)
Date and territory or location of launch	
Date of launch:	22 November 2013 at 1202 hours 29 seconds UTC
Territory or location of launch:	Plesetsk Cosmodrome, Russian Federation
Basic orbital parameters (at epoch 10 April 2014, 1000 hours UTC, upon end of transit phase)	
Nodal period:	94.66 minutes
Inclination:	87.7 degrees
Apogee:	505 kilometres
Perigee:	499 kilometres
General function of space object:	Swarm-B is one of three satellites of the Swarm constellation launched simultaneously into low Earth orbit on 22 November 2013. The ESA Earth Explorer mission will study the magnetic signals from the Earth's core, mantle, crust, oceans, ionosphere and magnetosphere in order to gain a better understanding of the Earth's core dynamics, geo-dynamo processes and core mantle interaction, the magnetism of the lithosphere and its geological context, electrical conductivity related to the composition of the mantle, and the Sun's influence on the Earth system.

* The information was submitted using the form prepared pursuant to General Assembly resolution 62/101 and has been reformatted by the Secretariat.

Swarm-A

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator:	2013-067B
Name of space object:	Swarm-A
State of registry:	ESA
Date and territory or location of launch	
Date of launch:	22 November 2013 at 1202 hours 29 seconds UTC
Territory or location of launch:	Plesetsk Cosmodrome, Russian Federation
Basic orbital parameters (at epoch 10 April 2014, 1000 hours UTC, upon end of transit phase)	
Nodal period:	93.98 minutes
Inclination:	87.3 degrees
Apogee:	481 kilometres
Perigee:	457 kilometres
General function of space object:	Swarm-A is one of three satellites of the Swarm constellation launched simultaneously into low Earth orbit on 22 November 2013. The ESA Earth Explorer mission will study the magnetic signals from the Earth's core, mantle, crust, oceans, ionosphere and magnetosphere in order to gain a better understanding of the Earth's core dynamics, geo-dynamo processes and core–mantle interaction, the magnetism of the lithosphere and its geological context, electrical conductivity related to the composition of the mantle, and the Sun's influence on the Earth system.

Swarm-C

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator:	2013-067C
Name of space object:	Swarm-C
State of registry:	ESA
Date and territory or location of launch	
Date of launch:	22 November 2013 at 1202 hours 29 seconds UTC
Territory or location of launch:	Plesetsk Cosmodrome, Russian Federation

Basic orbital parameters (at epoch 10 April 2014, 1000 hours UTC, upon end of transit phase)

Nodal period:	93.98 minutes
Inclination:	87.3 degrees
Apogee:	481 kilometres
Perigee:	457 kilometres
General function of space object:	Swarm-C is one of three satellites of the Swarm constellation launched simultaneously into low Earth orbit on 22 November 2013. The ESA Earth Explorer mission will study the magnetic signals from the Earth's core, mantle, crust, oceans, ionosphere and magnetosphere in order to gain a better understanding of the Earth's core dynamics, geo-dynamo processes and core–mantle interaction, the magnetism of the lithosphere and its geological context, electrical conductivity related to the composition of the mantle, and the Sun's influence on the Earth system.

Gaia

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator:	2013-074A
Name of space object:	Gaia
State of registry:	ESA
Date and territory or location of launch	
Date of launch:	19 December 2013 at 0912 hours 19 seconds UTC
Territory or location of launch:	Guiana Space Centre, Kourou, French Guiana
Basic orbital parameters	
Nodal period:	Sun–Earth Lagrangian Point 2 (L2) orbit
Inclination:	Sun–Earth L2 orbit
Apogee:	Sun–Earth L2 orbit
Perigee:	Sun–Earth L2 orbit
General function of space object:	Gaia is a global space astrometry mission to make the largest, most precise three-dimensional map of the Milky Way galaxy by surveying more than 1 billion stars over a five-year period. The spacecraft contains two optical telescopes and is positioned in an orbit around L2, at a distance of 1.5 million kilometres beyond Earth's orbit.